REMARKS

Claims 1-15, 18-29, and 36-46 were previously pending. Claims 1-15, 18-42 and 46 have been canceled. Claims 43 and 44 have been amended. New Claims 47-67 have been added. With entry of the amendments provided herein, Claims 43-45 and 47-67 will be pending. Claims 43, 51 and 67 are independent.

Claim 43 has been amended to recite that the precuring step is at ambient temperature.

Claim 44 has been amended to depend from new dependent Claim 47 that recites the step of curing the fiber cement article.

With regard to amended Claim 43, this claim now recites a method of manufacturing a fiber reinforced cement composite material, comprising the steps of providing cellulose fibers, treating at least a portion of the cellulose fibers in solution with about 5 to 10% by fiber mass with one or more sizing agents in the presence of water or an organic solvent for more than 1 hour and less than about 28 hours, wherein the sizing agent comprises a hydrophilic functional group and a hydrophobic functional group, wherein the hydrophilic group chemically bonds to at least some of the hydrophilic sites on inner and outer surfaces of the fibers to form sized fibers, wherein the sizing agent substantially blocks the hydrophilic sites, thereby reducing the fibers' affinity toward water; mixing the sized fibers with about 30 to 45% cementitious binder and about 38 to 60% ground silica, and at least one of density modifiers and additives to form a fiber cement mixture; forming the fiber cement mixture into a fiber cement article of a pre-selected shape and size; and precuring the fiber cement article for about 6 to 8

hours at ambient temperature so as to form the fiber reinforced composite building material.

New Claim 51 recites a method of manufacturing a fiber reinforced cement composite material, comprising providing cellulose fibers; individualizing the cellulose fibers; treating at least a portion of the cellulose fibers in solution with about 5 to 10% by fiber mass with one or more sizing agents in the presence of water or an organic solvent for more than 30 minutes and less than about 28 hours at a temperature of up to about 200° C, wherein the sizing agent comprises a hydrophilic functional group and a hydrophobic functional group, wherein the hydrophilic group chemically bonds to at least some of the hydrophilic sites on inner and outer surfaces of the fibers to form sized fibers, wherein the sizing agent substantially blocks the hydrophilic sites, thereby reducing the fibers' affinity toward water; conditioning the individualized cellulose fibers to a total solid content of about 4% to 90%; mixing the sized fibers with about 30 to 45% cementitious binder and about 38 to 60% ground silica to form a fiber cement mixture; forming the fiber cement mixture into a fiber cement article of a pre-selected shape and size; precuring the fiber cement article for about 6 to 8 hours at ambient temperature so as to form the fiber reinforced composite building material; and autoclaving the fiber cement article for 24 hours or less at about 60° to 200° C.

New Claim 67 is similar to new Claim 51 but differs in that it recites that fibers may be treated with a sizing agent in a solvent solution lacking alkali metal aluminates. Support for this recitation is found in the examples and throughout the specification.

Applicants submit that the prior art of record fails to disclose or suggest the recited sizing agent composition and the conditions and method of treating the fibers and producing the building article as defined by the claim. Support for Claims 51 and

67, and the claims depending therefrom, may be found at least in the examples and at paragraphs [0108-0124].

Rejection for Obviousness-Type Double Patenting (ODP)

The rejection of Claims 1, 5, 9-11, 14, 16, 18-24, 30, 31, and 34 for nonstatutory obviousness-type double patenting over all claims of U.S. Pat. No. 6,777,103 ("the '103 Patent") in view of Schmidt (CA 1,177,205) ("Schmidt") was maintained. Claims 1, 5, 9-11, 14, 16, 18-24, 30, 31, and 34 have been canceled. This rejection is believed to be moot.

Rejections under 35 U.S.C. § 112

Claims 43-46 were rejected under § 112, first paragraph, for failing to comply with the written description requirement. The basis of the rejection is that a text search of the application failed to identify the various claim limitations. Support for Claims 43 through 46 is found at least at paragraphs [0134] through [0150], Example 1, and the original claims. It is believed that a description is presumed to be adequate unless the Examiner has demonstrated "why a person of ordinary skill in the art would not recognize in applicant's disclosure a description of the invention defined by the claims." MPEP §2163.04. Reconsideration for withdrawal of this rejection is respectfully requested.

Rejections of Claims 43-45 under 35 U.S.C. § 103(a)

Independent Claim 43 and dependent Claims 44 and 45 are rejected under 35 USC 103(a) over the combination of Naji, Schimidt and Nakano. Schmidt is relied upon for overcoming the deficiencies of Naji. In particular, it is stated that "the concentration being preferably "low" (page 1, line 23), which is suggestive of concentrations within the

claimed range. It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to optimize the amount of sizing and arrive at the claimed conditions in order to maximize the hydrophobizing effect. Additionally, Schmidt teaches that the cellulose material is "immersed" (page 2, line 4), which would suggest that the amount of fibers is less than that of the solution, suggesting the claimed range." It is respectfully submitted that the Examiner has not established a prima facie case of obviousness for at least the reason that "low" stated in Schmidt can be presumed to mean the recited concentration of 5-10% sizing agent. Also, Nakano does not overcome the noted deficiencies of Naji and Schmidt, and does not suggest precuring the building material at ambient temperature.

Schmidt states "Surprisingly, however, only the mixture of these two components possesses an impregnating effect, whereas both the aqueous silanol solution and also an aluminate solution alone show no impregnating effect." (Schmidt, 1:25-33 to 2:2; emphasis added). Thus, Schmidt teaches that only the mixture of alkylsilanol and alkali metal aluminate create an impregnating hydrophobizing medium. In contrast, the claims of the instant application recite treatment with a sizing agent in the "presence of water or an organic solvent", i.e. an aqueous solution alone in the first instance.

Where a reference discredits or discourages an alternative, that references teaches away. MPEP 2143.01. Here, Schmidt teaches away from the use of a silanol in the absence of an alkali metal aluminate. Moreover, it is submitted that one of ordinary skill in the art would not reasonably expect that incorporation of Schmidt's sizing agent mixture in Naji's method would hydrophobize individualized cellulose fibers and Nakano does not overcome this deficiency nor does the combination suggest each

of the recited limitations of the claimed method. For at least these reasons, reconsideration for allowance of independent Claim 43 and its depending claims is respectfully requested.

Applicants respectfully submit that the Application is in condition for allowance, and Applicants earnestly seek such allowance of Claims 43-45 and 47-67. To the extent that any further fees are required during the pendency of this Application, the Commissioner is hereby authorized to charge payment to Deposit Account No. 07-0153 of Gardere Wynne Sewell LLP and reference Attorney Docket No. 129843.1030.

Please direct all correspondence to the practitioner listed below at Customer No. 60148.

Respectfully submitted,

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